POLYRHACHIS LAMA, A NEW ANT FROM THE TIBETAN PLATEAU (FORMICIDAE: FORMICINAE)

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Kohout, R.J. 1994 06 01: *Polyrhachis lama*, a new ant from the Tibetan plateau (Formicidae: Formicinae). *Memoirs of the Queensland Museum* 35(1):137-138. Brisbane. ISSN 0079-8835.

Polyrhachis lama sp.nov. is described from the Tibetan plateau of Central Asia as the first species of the *P. viehmeyeri*-group recorded north of the equator. It is suggested that species of the group were in the past more widely distributed and that *P. lama* is a relict surviving in isolation on the high plateau of Tibet. □*Formicidae, Polyrhachis, viehmeyeri species-group, new species, distribution.*

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This new member of the *P. viehmeyeri* species-group is characterised by the absence of pronotal spines, and abundance of distinctly shaggy pubescence beneath the bristle-like pilosity.

Measurements (mm) and indices follow Kohout (1990): TL, total length; HL, maximum head length; HW, head width immediately in front of eyes; CI, cephalic index (HWx100/HL); SL, scape length excluding condyla; SI, scape index (SLx100/HW); PW, pronotal width across humeri; MTL, metathoracic tibial length.

SYSTEMATICS

Polyrhachis lama sp.nov.
(Fig.1)

MATERIAL EXAMINED

HOLOTYPE: Tibet (=Xizang Zizhiqu, China). 'Deutsche Tibet-Expedit. 1938-39 (E. Schäfer)' (worker).

PARATYPES: data as for holotype (4 workers, 1 dealate female).

All in the Forschungsinstitut Senckenberg; paratype worker in Queensland Museum.

DESCRIPTION

Worker. Dimensions (holotype cited first): TL c.8.11, 8.32–8.72; HL 1.93, 1.87–2.03; HW 1.50, 1.47–1.56; CI 78, 75–79; SL 2.31, 2.21–2.40; SI 153, 150–155; PW 1.03, 0.97–1.06; MTL 2.97, 2.87–3.07 (5 measured).

Clypeus with deeply impressed basal margin; median longitudinal carina distinct anteriorly, indistinct posteriorly; median portion of anterior margin dentate laterally. Median ocellus rudimentary, lateral ocelli lacking. Pronotum unarmed; humeri produced into distinct, forward converging dorso-lateral carinae almost reaching the anterior pronotal margin. Promesonotal suture well impressed, metanotal groove rather ill defined. Propodeal spines well elevated, only slightly divergent. Dorsum of petiole convex, anterior and posterior margins obsolete; spines well elevated, divergent.

Clypeus, frontal and lateral areas of head, lateral branches of mesosoma and petiole moderately rugose; rugosity increasing dorsally and posteriorly with dorsa of head and mesosoma fairly coarsely vermiculate-rugose. Gastral dorsum opaque, striate-rugose, with sculpture progressively less distinct posteriorly.

Moderately long, yellowish and reddish bristle-like hairs fairly dense on all body surfaces, including appendages. Silvery pubescence, of distinctly shaggy appearance, rather dense, except on promesonotal dorsum where it is somewhat less abundant.

Generally dark reddish brown with head, mesosoma and petiole on dorsal aspect piceous. Mandibles, appendages and gaster a shade lighter.

Female. Dimensions: TL c. 9.07; HL 1.96; 1.53; CI 78; SL 2.28; SI 149; PW 1.71; MTL 2.97 (1 measured).

Besides the usual characters identifying full sexuality, the general appearance of the available single female resembles the worker very closely. Pronotal humeri with short, ill-defined carinae. Propodeal and petiolar spines shorter, the former slightly, the latter rather more divergent. Sculpturation similar to that of worker, with density increasing from moderately rugose to fairly coarsely vermiculate-rugose, namely on the head and mesoscutum, contrasting sharply with that on mesoscutellum where it is distinctly less coarse with somewhat granular appearance. Bristle-like

FIG. 1. Scanning electron micrograph of the uncoated holotype of *P. lama* in dorsal view.

pilosity is definitely more dense than in worker and abundant shaggy pubescence almost obscures the underlying sculpturation.

Male and immature stages unknown.

REMARKS

Known distribution of the *viehmeyeri*-group is from the Moluccas through Papua New Guinea to the Solomon Islands and northern Australia (Kohout, 1990) but this could be underestimated.

With the description of *P. lama* it appears that the group was in the past more widely distributed and, perhaps, *lama* is an isolated relict. The undeniable similarity between *P. lama* and the *viehmeyeri*-group prototype shows that both probably derived from the same ancestral stock. As noted earlier (Kohout,1990:506), most of this group exhibit variability in the length of pronotal spines even within the same population. Their complete absence and replacement by forward produced carinae, as seen in *lama*, demonstrates their variability to the extreme and can be interpreted as a product of an independent development of the species in isolation.

ACKNOWLEDGEMENTS

Dr J.-P. Kopelke and Wolfgang H.O. Dorow generously provided access to the Forschungsinstitut Senckenberg collection. My gratitude is expressed to the Australian Entomological Society, for a Research/Travel Grant. I thank Dr Kevin J. Lambkin, Queensland Museum, for reading the draft manuscript.

LITERATURE CITED

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